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Original Communications.

CASES OF LEUCOCYTHÆMIA.

By R. T. EDDES, M.D., Boston.

C. H., æt. 40, in June, 1868, after exposure to wet and overwork, had what was supposed to be subacute pleurisy on left side, with effusion and pain, which disappeared in a fortnight under the use of diuretics. In the summer, he went into the country. October 1st, he complained that a week or two before, the abdomen became distended, and he was conscious of a rubbing sensation. On the left side, one could feel the creaking, as in pleurisy, along toward the median line and down toward the groin. After three weeks, there was a doughy feeling with obscure fluctuation and less tumefaction. The tumor was dull on percussion, but more resonant on deep percussion. The edge could be felt toward median line. Pulse 70 to 100. Iodine and heat were applied, under which the tumor was somewhat softened and lessened. February 15th, it extended an inch and a half across to the right of umbilicus. At this time, fluctuation was more distinct, and it was supposed pus might lie between layers of abdominal walls.

March 10th, a hydrocele trocar was introduced, drawing nothing but blood, and then a full-sized trocar, with the same result. A flexible sound passing in five inches determined the fact that the tumor was not in the abdominal walls. Some of the solid material removed on the trocar was found, on microscopical examination, to resemble the spleen. Pain was increased after this operation, and the patient took opium or morphia for a considerable time. At a later period, his appetite failing him, he resumed the use of opium, and continued it until his death, experiencing therefrom, while under its influence, nothing but good effects, unless his obstinate constipation is to be reckoned to the contrary.

The only new symptom developed for

some time after this was anasarca, which failed to disappear under various diuretics, until sulphate of magnesia, given in small doses, acted as such and not as a cathartic, causing the relief of the symptom.

In the spring and summer of 1869, his blood was microscopically examined, and found to contain white corpuscles in great abundance, at least equalling the red. Many of them were large and had but one nucleus of considerable size. In October, 1869, he took quinine in considerable dose, and as it appeared with some temporary advantage, but it was not continued.

In May, 1870, he was confined to his bed or a large easy-chair. His emaciation was great, though his appetite was excellent, and, for a sick man, at times almost voracious. Bowels extremely constipated. There was some irritation of the urinary passages, with hæmorrhage, and he used a decoction of triticum repens as a demulcent.

The tumor had not increased in size, so far as external examination could determine. The use of opium continued in increased doses. Early in May, his hearing failed rapidly, and within a few days it became necessary to write messages to him on a slate. His wife noticed that he heard certain voices better than others, apparently owing to their peculiar pitch. He finally became almost completely deaf, and complained of noises in his ears.

A few hours after a subcutaneous injection of morphia, a tumor rapidly developed in arm, not at the place of puncture, which was for a time quite painful, and in a few days faded away, leaving mark like a bruise. A second similar one formed a few days before his death in the hollow behind the right trochanter major. It increased visibly in size while watched.

Throughout the disease, the mind remained clear, and the only symptom referable to the cerebrum was an increase of a natural excitability of temperament, probably no more than would occur in any painful chronic disease. It was less when under the influence of opium, whose only effect upon him seemed to be that of an

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appropriate stimulant. The debility, emaciation and extreme nervous irritability increased, and dimness of vision came on. He died June 14th, 1870.

Autopsy.—Nothing abnormal noticed in brain. Cavities of heart contained clots, of which some were dull red, but other large ones resembled masses of thick pus, being of a light-green color. The same clots were found in the large veins. The vessels of the spleen were much enlarged. Spleen was 10 inches long by $5\frac{1}{2}$ broad and $13\frac{1}{2}$ in circumference, weighing $4\frac{1}{2}$ pounds. A portion of the capsule at, I think, the upper end was much thickened, tough and white like a piece of tendon, or almost like cartilage. Near this portion, were found irregular spots and masses of a rusty red or orange color, much lighter than the remainder of the spleen.

The tumor behind the trochanter was cut into and found to be a mass of grumous blood, occupying a ragged cavity in the muscles and beneath the skin. Under the microscope, the light-colored clots were seen to be composed of white corpuscles, slightly granular, almost all with only one quite large nucleus, varying in size from a little below to a little above that of an ordinary white corpuscle or pus cell. In such portions of the clots as showed some indication of fibrin a few red corpuscles were seen, and vibrios as well as crystals of an elongated rhomboid form. The red fluid portions of blood contained more red corpuscles, fewer white and no crystals. The red clots contained white and red in perhaps equal proportions, though divided into small groups, the white occurring in masses.

Many crystals and threads of fibrin. With acetic acid the cells become nearly or quite invisible, the nuclei shrivel. The crystals diminish, and are only seen in interior of clot.

The spleen contained corpuscles similar to those in the blood, but averaging smaller and with the nuclei less distinct. Rhomboidal crystals like those in the blood, but very much smaller, were seen. Some orange-yellow masses, with darker spots within and many minute granules were found.

On picking at the deep orange spots in the upper part of the spleen, there were found beside the splenic corpuscles large numbers of granules, of various sizes, but mostly larger than the small ones found in other parts of the organ, many of them deep yellow; also many more of the orange-colored masses, with enclosed granules or nuclei. The crystals of leucosin were

larger, and there were also irregular structures, resembling deeply-stained epithelial cells or fibrous masses, which could not be more exactly made out.

Sections of these spots showed similar structures *in situ*, but did not determine their nature.

The liver contained liver-cells, blood-corpuscles of both kinds, and crystals. Some pigment.

Kidney.—Some tubes with granular contents—(post mortem?).

Urinary sediment contained epithelium and a few casts; also crystals of three kinds, dark globular masses with radiating needles, probably urate of ammonia or soda. Very small ones approaching the dumbbell or biscuit seen edgewise, and others resembling somewhat triple phosphate, but not either of the ordinary forms.

Upon examination of the auditory nerve, by Drs. Green and Warren, it was found to be in a state of fatty degeneration. I am very sorry that it did not occur to me to examine the auditory nucleus in the medulla oblongata until too late.

Wm. N., about 15 or 16 years old. First symptom, obstinate priapism. I only saw him once, a few days before death, and the examination was not complete nor recorded. There was paralysis of some kind. He was blind and nearly completely deaf. Could say a few words which his mother could understand. A tumor could be felt in left groin. There had been swelling of calf of right leg, and bleeding from an ulceration or incision of that leg. He had a voracious appetite, but was extremely emaciated.

Autopsy.—Membranes of brain much congested. Whole brain soft and congested. A large, ill-defined white softening in anterior portion of left cerebral hemisphere, probably about corpus striatum. A large softening of similar character in left lobe of cerebellum.

Lungs contained one or two small cystic cavities, but no tubercle.

Pericardium with considerable fluid. Heart healthy in appearance, but containing brick-dust colored grumous blood, and some portions of whitish purulent-looking substance.

Liver flabby; weight, five pounds.

Spleen constituting the tumor felt in left groin during life lobulated on anterior edge weighed $1\frac{1}{2}$ pounds. It was of firm consistence and, except its size, of healthy appearance.

Pancreas normal. Intestines not examined. Right kidney contained a large number of small brownish uric acid calculi.

Left, contained one large calculus of the same kind, occupying whole pelvis.

Bladder normal. Mesenteric glands enlarged. Calf of right leg contained a large mass of blood and some pus. The opening in the artery could not be found, but the blood probably came from the small arteries about the knee-joint.

Microscopic Examination.—Blood was about two thirds white corpuscles, large, with only one nucleus, in some instances almost as large as the cell.

Spleen contained similar elements, with the usual fusiform cells.

Lymphatic glands contained uninuclear cells much smaller than those in the blood, the cell being much less distinct than the nucleus. The liver had many cells of various sizes, perhaps on the whole the cells being small and crowded. Otherwise healthy.

The softened portions of brain contained many round compound fatty bodies (inflammation or granulation corpuscle) and some cells retaining more or less of their processes and original shape, but much degenerated; the latter cells especially in cerebellum.

These two cases are not offered as exceptional, but as contributions to the natural history of a somewhat rare disease. Though differing in some important particulars, they agreed with each other or with cases elsewhere described in many points. Such are:

The occurrence of the large white corpuscle usually found in the splenic as distinguished from the lymphatic variety;

The presence of rhomboidal crystals, described by Dr. Ellis in a similar case, and called by him leucosin;

The hæmorrhages, common;

The appetite, to say the least, very good. This is a somewhat remarkable symptom, when we remember that increased appetite follows the removal of the spleen in dogs.

The failure of the special senses.*

* Since the above report was read, I have obtained additional information on the subject of the crystals found in the blood in the first case.

As above mentioned, Dr. Ellis has reported a case of splenic leucocythæmia (Extracts from the Records of the Boston Society for Medical Improvement, vol. iv., 1861, p. 251), in which he found the same crystals.

In the Archiv für Mikroskopische Anatomie, Bd. ii., s. 508, Prof. Neumann reports a case of splenic leucocythæmia, in which he also found crystals evidently the same, and he gives at some length their chemical reactions, which are somewhat peculiar, but from which he draws no very definite conclusion, except that they are not byrosin, as had been supposed. Under the action of strong hydrochloric and nitric acids, the crystals became flexible and assumed the form of an S or a C. The same acids dilute dissolved them.

Another case was reported by Magiot and Charcot (Gaz. Hebdomadaire, 1860, No. 47).

E. Wagner (Archiv der Heilkunde, iii. p. 379) found crystals answering to this description in a soft, greyish-

TREATMENT OF INTERMITTENT FEVER BY CARBOLIC ACID.

Translated by Dr. H. TRICK, from Wien. Med. Presse, March 19, 1871.

Dr. TREULICH reports eight cases of intermittent fever promptly cured by carbolic acid. His formula is:—

R. Acidi carbolici, gr. iij.;

Inf. gent., 3v.;

Syr. simpl., 3i.

M. Dose, 3i. ter die.

His article closes thus:

1. Carbolic acid is an admirable remedy for intermittent fever, even for obstinate cases which have resisted quinine.

2. Its action is speedy and certain, and it requires such a small amount that it cannot possibly have any injurious effect on the system.

3. The average amount required was four and one-eighth grains.

4. It costs only one-thirty-fifth of what quinine does, and so is to be preferred for the poor.

5. This successful use of carbolic acid proves that the action of quinine in intermittent fever is antiparasitic.

6. It also favors the opinion that intermittent fever is the result of a blood poison.

Selected Papers.

SPONTANEOUS FRACTURE.

By DAVID W. CHEEVER, M.D., BOSTON.

FRACTURES of the shafts of long bones, when occurring in connection with a slight, or almost insensible injury, are usually ascribed, and correctly, to one of four diatheses, or local diseases; viz.: rachitis, mollities, caries or cancer.

yellow thrombus, consisting almost entirely of white cells, and filling a branch of the portal vein, in a woman who died suddenly in childbirth.

Similar crystals have described been and figured (Forster's Atlas der Path. Anat., taf. xxxiii., fig. 4) as occurring in sputa in a case of acute bronchitis, in a myxoma of the optic nerve, and in the thickened mucus of a dilated biliary passage.

The fact of these crystals being found in connection with these well-marked cases of splenic leucocythæmia, the character of the clots in which they especially abounded in the case reported by me, and most of all their occurrence in a clot of the same character in the case reported by Wagner, seems to show some connection between their formation and the presence of an unusual number of white corpuscles; while on the other hand the conditions under which they (supposing them to be the same chemically as they undoubtedly are in form) were found by Forster are entirely incompatible with such an hypothesis.

When occurring in bones not affected by either of these diseases, such lesions are quite rare, and must be classed by themselves. It is to this class we apply the term spontaneous fracture.

CASE.

A young lady, of rather delicate health; pallid, lymphatic and predisposed to scrofula, fell upon the ice, and struck upon the left shoulder and arm. The injury was considered by herself a trivial one, and but little treatment was adopted. Dull pains in this arm, however, gradually came on, and recurred frequently for seven weeks. There was no external sign of local injury during all this period. Gentle frictions and applications were used; the injury was regarded as a contusion, and the patient continued to follow her usual mode of life.

At the end of seven weeks, she was, one morning, walking down a flight of stairs, being about to go out, when a book she was carrying in her left hand, fell to the floor, and she exclaimed to her companion that she had a violent pain, and could not raise her left arm.

When this occurred her right arm was towards the banisters, and her left entirely away from any object or person. The book which she was carrying was of moderate weight.

She now complained of feeling faint, and was taken into a room adjoining the landing of the stairs where the accident happened, and laid upon a bed.

Having been sent for, I saw her soon afterwards, and found a fracture of the shaft of the left humerus, near the surgical neck. The signs of this fracture were—deformity; bony crepitus when the arm was lengthened and rotated; no rotation of the head with the shaft; a positive hinge in the upper third of the shaft; pain and entire helplessness. There was no bruise, no swelling, reddening, fluctuation or sinus. The bone did not appear at all enlarged. The ends of the fracture felt rounded off and pointed.

TREATMENT.

A moderate pad of soft cotton wadding was put in the axilla; a straight splint, padded, was applied to the inside of the arm; a shoulder-cap splint of Ahl, padded, compressed the deltoid muscle, and extended down to the external condyle. Extension having been made, the splints were bandaged on. The double triangle of Mayor was now applied, by means of two large handkerchiefs, the apices of the triangle meeting at the elbow.

This apparatus was continued for four weeks, with occasional slight re-adjustment. At the end of four weeks, the splints were taken off, and the union was found to be good; the head of the bone rotating with the shaft, and a very considerable, ovoid-shaped mass being felt around the seat of fracture.

The arm was supported in a sling for two weeks more, and then left to itself. It had thus united, firmly and without pain, in about the usual length of time which bones of that size require to repair a break.

REMARKS.

Neither before, nor since that time, now eighteen months ago, has the patient experienced any similar fractures, or a tendency to them. Her health is moderately good; and she is, and has been, of active habits.

The fact of fracture is beyond question; the immediate exciting cause was absolutely nothing in the way of effort, or injury. The book fell because the arm broke; just as old people sink down prostrate because the neck of the femur gives way in advanced age.

Our patient was young, and had none of the symptoms or antecedent causes to which a tendency to fracture is ascribed. She had experienced a fall, followed by continuous local pain. Is it not fair to conclude that the blow had given rise to local inflammation of the bone, followed by absorption, atrophy and fracture?

If this be a correct explanation, the prompt repair of the injury is remarkable. It would seem as if Nature had endured progressive atrophy, and forborne resistance to disintegration, until the bone gave way and the rupture was complete, when immediately her forces were roused by the shock, and were set at work actively to repair damages.

We have in this, perhaps, an explanation of the large callus which was formed; for, although the misplacement of the bones was remedied by splints, so that the arm came out of the apparatus of good length, even and uniform with the other, yet the provisional callus was as large as we see in very badly misplaced fractures. It is now well known that in fractures perfectly apposed and retained, union takes place from surface to surface, by the Haversian canals, without any marked provisional callus; while in fractured bones whose ends have shot by each other an enormous ball of provisional callus is thrown out.* This plastic material is from three sources: the Haver-

* Hamilton on Fractures.

sian canals and periosteum of the medullary cavity (medullary membrane), the periosteum outside the bone, and even from the connective tissues around it.*

Does it not then seem probable that in this fracture from degeneration and atrophy, there was little power of repair in the fractured ends, and therefore, although the ends were kept well in apposition, the repair took place from the outer periosteum and surrounding tissues, and by a large provisional callus? Just so we see Nature, by a supreme effort, patch up the dangling leg of the lamb, or chicken, which is kept in motion by the animal, and repairs with an enormous callus.

In a similar way I have seen a fractured clavicle in a child, although never rested and never treated, because not recognized, recover while in motion, with a large provisional callus.

The singularity of the accident, the absence of exciting cause and the peculiarity in the repair, combine to render this a case of much interest, although, as we shall presently show, it is not a unique one.

I had fresh in mind the case of an old lady who was brought to the hospital, having fractured the shaft of the femur in the middle, by being lifted and turned in bed. In this case the limb was put in an apparatus and kept at perfect rest for six weeks. A projection forming around the fracture was thought to be a callus, and our disappointment was great when it was found that no union had taken place, and to discover, after death, a mass of osteoid cancer filling and thinning the shaft of the bone, and projecting in every direction around the fracture. It was natural, then, that much solicitude should be felt as to the result in this case of spontaneous fracture, lest it should be found that cancer were the cause of the trouble. * * * * *

In describing the conditions of spontaneous fracture, Malgaigne† says:—

"But a cause, much more frequent, and one which has been too often overlooked, is a local inflammation of the osseous tissue. I call thus, by conjecture, an affection which exhibits itself externally in dull pains, which the patient refers to a previous contusion, or to an attack of rheumatism; rarely severe enough to excite constitutional disturbance, and hardly arousing the attention, until, finally, on a very slight effort, a fracture occurs at the seat of the pain.

* Billroth, Surgical Pathology. Ollier, Regeneration of Bones.

† Malgaigne, Fractures and Dislocations.

"I have seen a young man of twenty years, strong and of good constitution, fracture his femur by falling from the upright position down upon level ground; for some weeks previous he had experienced, at the seat of fracture, pains which he had referred to rheumatism."

"A majority of the fractures of the long bones by muscular action are prepared for, so to speak, in this way. Nicod gives two remarkable cases. A journeyman carpenter had, for a month, rheumatic pains, quite acutely, in the left arm; a fracture took place, while he was pressing forcibly upon the handle of a bit-stock which he was turning with the right hand. A laborer broke his right arm while throwing a stone; it appeared that he had always enjoyed good health, until a month previous, when pains in his right arm increased so rapidly as to prevent his working; but there was never fever, nor loss of appetite a single day." "I could cite similar facts as to fracture of the patella.

"Therefore, whenever we are obliged to subject the bones to a considerable strain, as in the reduction of old dislocations, I regard it as a very important precaution to assure ourselves beforehand whether the patient has experienced fixed pains at any point of the dislocated limb."

It will readily be seen how important a bearing the causation of spontaneous fractures may have in certain medico-legal questions.

Contrasting spontaneous with ununited fractures, it might be said that the former began in an atrophy and ended in reparation; while the latter began in a normal state by an accidental break, and ended in an atrophy, without power of repair.

We append the following case, in point, from the report of the Clinical Society, taken from the *London Lancet* of December 3d, 1870:—

"Mr. Durham related a remarkable case of spontaneous fracture of the femur. When first seen by him, the patient, a professional man, was seated, half-dressed, in an easy-chair. He thought himself capable of walking about, and was surprised to find this impossible. The right femur was found broken at the junction of the upper and middle thirds, the limb being shortened by three inches. Three months previously, the patient had fallen down stairs and hurt his thigh; but he soon felt nothing of the injury, which he thought a trifling one. Seven weeks, later, however, he began to have aching pain in the thigh, which was considered

and treated as neuralgia; and when this had lasted three weeks, he felt, on going to bed one night, a sudden increase in the pain, and fell on to his bed in great agony. Next morning, he could not move the thigh, which was much swollen. He was quite unconscious of having subjected the limb to any sudden strain.

"After a few days, the swelling and pain diminished, and he got up, but could not walk about; and it was about ten days after, that Mr. Durham, visiting him for the first time, in consultation, found his thigh broken. Under treatment the bone united; in the course of four months the patient could move about; two months later, he returned to professional work. He remains quite well. Mr. Durham thought it probable that at the time of the fall some injury of the bone had taken place, which had been followed by gradual interstitial degeneration and absorption of bony tissue, instead of healthy repair, and had led to spontaneous fracture of the bone. The patient had, it seemed, been subjected to great worry, and wear and tear of brain, and Mr. Durham suggested the relation which may exist between overwork or excitement of brain and defective nutrition of bone."

POISONING BY SULPHATE OF ATROPIA.

By CHRISTOPHER JOHNSTON, M.D., Professor of Surgery in the University of Maryland. Read before the Baltimore Medical Association.

Mrs. R. M., aged 56 years, having a cataractous eye, became the subject of the modified linear operation for extraction by the hand of Dr. George Reuling.

To secure the happy result which a successful surgical procedure promised, a solution of sulphate of atropia was instilled into the eye at each inspection of the organ, and a small bit of linen cambric moistened with a few drops of the same. For convenience, Dr. R. left in the room of the patient a half ounce of the solution, which contained two grains of the salt, and with a proper caution. On the 11th of February, at 11.30, P.M., I found a message urging me to repair "in haste to Mrs. M., who had poisoned herself by taking wrong medicine." With a stomach pump under my arm, I hurried to the patient, met the doctor at the door—for he had obeyed a summons like that which I had received—and when the door opened, a word from the servant, and the exclamation, "atropia," from Dr. R., explained the alarm of the family, and

the necessity for prompt measures of relief.

About twenty minutes had elapsed since the poison had been swallowed.

As I ran up stairs, I determined upon the course to be pursued, and acting upon the assumed antagonism of morphia and atropia, injected hypodermically 15 minims (all we had) of Magendie's solution of morphia, sent out for a further supply of it, and without delay introduced a tube into the stomach.

The patient at this time was profoundly insensible, breathing heavily and slowly, and was cold and damp at the extremities. The mouth and pharynx were exceedingly dry, and the tongue as hard as "the way of the transgressor;" the pulse feeble and rating at about 90, and the pupil of the uncovered eye largely dilated.

We quickly pumped the stomach full of warm water, and reversing the instrument withdrew with it a quantity of dark matter, including powdered ipecacuanha, which, in the first moment of agitation, a friendly hand had administered. Again water was introduced, and then promptly withdrawn discolored, and so on, until the warm water returned without a stain; upon which half a tumbler of rye whiskey, properly diluted, was injected, whereupon the tube was removed.

In the meantime, at about twenty minutes after our arrival, we were able to employ hypodermically twenty-five additional minims of Magendie's solution, which made a total of forty minims.

For more than an hour the patient seemed to improve slowly; subsequently the pupil began to diminish, and there were indications of a relapse into her former unconscious state. Fearing the possibility of narcotism by morphia, we provided ourselves with sixty grains of caffeine—all that could be obtained—and, accordingly, at this juncture, readjusted the tube, injected the caffeine, made soluble in water by acetic acid, and followed it with some very strong, hot coffee. We also refreshed the bowel with the same infusion.

All this took time, and as the case halted we set our battery in operation, to accelerate the languishing respiration, applying one pole to the sides and back of the neck successively, and the other to the epigastrium and along the margins of the ribs and the lower intercostal spaces. Soon the pulse rose a little, respiration became at first stertorous, and then deep, regular and more frequent, and the patient finally revived from her lethargy with the skin warming by sensible degrees.

Our efforts ceased at about 4.30, A.M., and finding Mrs. M. conscious and in safety, at 5, A.M., I retired.

Dr. Reuling remained in charge of his patient, who, at 10, A.M., the same day, was doing well, though a "little uncomfortable."

It was ascertained that on the mantle beside the half-ounce bottle of atropia had stood a half-ounce solution of hydrate of chloral in a similar bottle. Mrs. M. asked her servant for her medicine, which she had taken from time to time before Dr. R. saw her. "How much shall I give you?" asked the maid. "All of it," said the mistress; and, accordingly, about two-thirds of a grain of sulphate of atropia in the unused solution were estimated to have been swallowed by Mrs. M., who immediately recognized the error and despatched her attendant for professional succor. — *Baltimore Medical Journal*.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
F. B. GREENOUGH, M.D., SECRETARY.

APRIL 10th, 1871.—*Partridge Poisoning*.
Reported by JOHN HOMANS, M.D.

Mr. W., æt. 40, ate about half a roast partridge at 1, P.M.; at quarter-past two, went down town in the horse-cars. At about 3 o'clock, when near "Scollay's Building," he suddenly lost his sight and fell ill. His vision partially returned, and he was able to reach the horse-car station, at Montgomery Place, though with difficulty. Everything appeared as in a thick smoke. When the car reached Boylston Street, Mr. W. felt so wretchedly that he went into the hack stable, there to get a carriage. He was found by the stable-people, who were out at the moment of his entrance, seated in an arm-chair, in a state of the most complete collapse. At this time I saw him. He was huddled in the chair, perfectly limp, no muscular contraction, whatever, being exerted. The color of his face was ashy pale, except that a part of the forehead and the lips were purple; he was unconscious, his skin was cold, frothy mucus was hanging from his nostrils and mouth, and his breathing was just perceptible, and so feeble that it seemed as if the air only entered the trachea; there was no pulse at the wrist, and there was that peculiar odor of clammy perspiration which

is so commonly noticed just before death; in short, Mr. W. looked exactly like a person moribund with phthisis.

He was roused a little and swallowed about a teaspoonful of brandy and ammonia with water, and at once vomited a brownish tenacious fluid, with several cranberry skins. While he was vomiting, the mucus in his nostrils and throat nearly strangled him.

As soon as possible, he was taken home, put to bed and surrounded with as many bottles of hot water as could be procured.

As the vomiting seemed to relieve him, mustard and ipecacuanha were given. He vomited several times, and complained of an intense pain in the small of his back. At 5, the pulse was just perceptible at the wrist, was 36 and regular at the carotid; the surface of the body was warmer, and his consciousness perfect. At 6, P.M., body warm, pulse 40, nausea still present. Enema of hot milk and whiskey. At 7, slight dejection. At 7½, was helped to the water-closet and had a free dejection. At 8, P.M., pulse 56. Up to 10, P.M., had several attacks of vomiting, mostly mucus; also several loose dejections at closet. At 10½, pulse 56—warmth good.

The next morning, at 8, A.M., pulse 72. Vomited only twice in the night. Feels pretty comfortable, but languid.

When questioned, he said the partridge tasted quite bitter, but not otherwise remarkable. There was snow on the ground at the time. For other cases and some of the theories in regard to the poisonous element in the partridge, the Society is referred to the very interesting paper by Dr. Jacob Bigelow, in the volume entitled, "Nature in Disease," and other writings. The uneaten half of the partridge was given to me, and, so far as I could see, it resembled perfectly any other cold roast partridge.

APRIL 10th.—*A Case of Sudden Death*.—Dr. SWAN reported the case.

Mr. M., æt. 66 years, formerly a sea-captain, but now employed in running a stationary engine, and exposed very much to gas from burning coal; when a seafaring man, had been exposed to many hardships. At one time, he was shipwrecked, and remained for four days upon the wreck, both legs having been broken just below the middle of the tibia; he floated about in the bottom of the wreck for several hours, and when brought on deck, he was exposed to the lashing of the waves, which kept the broken legs constantly in motion, was taken aboard a schooner, fourteen days before reaching Charleston har-

bor, where he could be attended to. Recovery took place with 2½ inches shortening, but his legs were useful and serviceable. He could walk with ease and freedom. He was a man of good general knowledge and intelligence, exemplary in his habits, and always strictly temperate.

I was called to see him about 8½ P.M., April 3d, 1871; he complained of a burning and smarting through the sternum, attended by a feeling of numbness in left arm. Although at no time entirely free from it, the sensation came in paroxysms, of greater or less severity, lasting several minutes; he had had three attacks in the last two hours. He described it as "not a pain, but a burning, as if corrosive sublimate had been applied to the part." The first he had ever experienced of this was on the Friday evening previous (March 31), on account of which he had consulted his family physician on Saturday—he had not felt well since. To-day he had done a hard day's work, had been exposed to gas to a greater extent than usual, and came home tired. I should mention, perhaps, he had for a long time suffered from dyspepsia. When first seen he was sitting up; countenance pale and anxious; skin cool; pulse 68, full and regular. Sounds of heart normal; impulse good. Impulse at wrist, and also in tibial artery, good. Bowels natural. No tenderness of stomach. No cough. Respiration free and unobstructed. No pain on forced respiration; no headache; no vertigo. Speech deliberate and decided in manner. Percussion and palpation discovered nothing; stethoscope nothing, save a slight rûle over a limited space a little to left of sternum. No paralysis; no lesion of the aorta discovered; impulse strong over stomach.

While I was present, he declared an attack was coming on. There was no disturbance and no increase of circulation. Prescribed the following:—

R. Fl. ext. opii,
Tr. capsici, aa ʒi.;
Aq. calcis, ʒx. M.

A teaspoonful every hour until relief. An attack came on soon after I left, before the medicine was given. He became more quiet, but still anxious until 12 o'clock, when he had another and more severe attack, and experienced numbness in both arms; this did not abate as rapidly as had the other attack, and he made various remarks, declaring that he should die. He had taken of the medicine in all four times (or ʒiv.). At 3 A.M., he leaned forward toward the bed, made a remark with reference to his wife, who was sleeping, and

immediately rose up from his chair, straitened back, making a short and forced groan, stiffened and died.

Autopsy.—Lungs cedematous, the right a little more than the left. Right side of heart and vena cava contained a large quantity of black, liquid blood. Left side empty, and walls of left ventricle firm. In right auricular appendage a small fibrinous clot, of quite firm, granular character was seen, apparently of *ante-mortem* formation, but which, from its situation, could not have caused any trouble. By estimate, from a pint to a pint and a half of blood was removed from the right side of the heart and the connecting veins. A few old and rather firm adhesions on both pleuræ, some at the left base requiring to be cut.

Kidneys quite firm and dark. One of the capsules somewhat thickened. A small cyst in right kidney. Otherwise normal. Supra-renal capsules normal.

Spleen normal.

Some slight, scattered injection at cardiac end of stomach.

Intestine, as seen externally, normal.

Bladder contained considerable urine.

Liver not removed.

Brain substance of normal firmness; very little serum in ventricles or elsewhere. Calvaria strongly adherent. Several atheromatous opacities in arteries at base of brain. Vessels of pia mater in normal condition, as regards distention, &c.

Rigor mortis extreme.

Aorta atheromatous. The disease, slight in the arch, became extensive and advanced in the lower abdominal portion, where the walls contained large, stiff, calcareous plates, some of them of semi-cylindrical form, resisting moderate efforts to break with the fingers.

The legs, said to be two and one half inches short, were beautiful pathological specimens, as presenting a remarkable instance of unaided recovery from fracture of both bones of each leg, from injury received about fourteen years ago. The legs were perfectly serviceable, although the union of the bones was very irregular.

APRIL 10th.—*Malformation of Child.*—Dr. STORER reported the case.

Child a week old, born prematurely—seven and a half months—weighed at birth five pounds. Said to have had the cord entwined around its extremities and the neck.

Upon examination, the hands and feet presented a singular appearance, at first sight looking as if they formed a cone, the apex being the outer extremities.

Looking at the right hand, the thumb is

free—detached from the forefinger, having the mark of a cord, or small string (as shown by a deep depression) over the second joint. The four fingers are fused together throughout their entire length; the forefinger overlaps the middle finger at their extremities, and from its extremity passes a band across to the little finger over the second, the ring finger being pressed beneath the others.

On the left hand, the little finger is normal; the three other fingers are fused together to the last joint. At this joint they appear to be bound by a thread so tightly as to distort them extremely. The thumb is webbed to its last joint.

All the toes of the right foot, except the little toe, present the appearance of depression from a string, as above described. The last joint of the second toe is wanting. The first toes present the same thread, or string, as before noticed.

The first three toes of the left foot are fused; the last two are free.

Upon the mother's being questioned as to any similar condition having existed in her family, she stated that the second and third toes on her feet, and on her mother's and an uncle's were webbed.

VERMONT MEDICAL SOCIETY. REPORTED BY L. C. BUTLER, M.D., SECRETARY.

The Vermont Medical Society held its semi-annual session at the Welden House in St. Albans, Wednesday and Thursday, June 7th and 8th. There were present physicians from various parts of the State, and also delegates from the Medical Association of Northern New York, and from the New Hampshire Medical Society. The Society convened at 11, A.M.

The forenoon was occupied with a discussion upon *chloral hydrat*, and at the opening of the afternoon session a paper was read by Dr. Harvey Knight, of Georgia, upon that subject. Dr. Knight gave its chemical composition, and its use as a remedial agent, in cases occurring in his own practice. He spoke particularly of the danger of its indiscriminate use by persons who do not understand its composition. An interesting and instructive discussion followed.

The president of the Society, Dr. S. Putnam, of Montpelier, presented the details of a case of *sub-acute meningitis*, in which the *post-mortem* examination revealed extensive disease of the meninges of the brain, with softening of its substance.

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The following persons were elected members of the Society: LeRoy M. Brigham, of Stowe; Chas. S. Leach, of Highgate; A. G. Hall of East Fairfield, and R. H. Clark, of South Hero.

The subject of *scarlatina* was then proposed for discussion, mainly with reference to its being contagious, and to the treatment proper to be pursued. Opinions varied widely in regard to the contagion of the disease, but more generally coincided in regard to treatment.

Dr. Chandler, of St. Albans, read a very interesting and able paper on *Preliminary Education for the Medical Profession*. The Dr. advocated thorough instruction in the Languages, and illustrated his ideas by reference to the history of individuals within his knowledge.

During the evening session, the Vice President, Dr. A. T. Hyde, of Hardwick, delivered an address on the subject of *Fashion in Medicine*. The Doctor favored the use of the old remedies of the schools, as being quite as successful in the treatment of disease as the "new remedies" of the day. The address had many good points and was well received. The subject of the paper gave rise to an extended discussion, which was continued during a part of the forenoon of Thursday.

During the session of Thursday morning, the subject of *Apoplexy* was under discussion. The members of the Society generally participated in it, giving history of cases in their practice. Blood-letting as a remedy in this disease was discussed pro and con, the general impression being made that while it should not be discarded yet it is generally of little value.

A pleasant episode in the proceedings of Thursday forenoon was the exhibition of the indentures of a physician's apprentice of just one hundred years ago, by Dr. Crosby, of the New Hampshire Medical Society.

During the afternoon, the subjects discussed were, "What shall we do with our tubercular patients?" and "Uterine Hemorrhage." The first with particular reference to whether we should advise a change of climate for those in whom tubercles are already existing, and the latter with reference to the best method of treating it. Nearly all the members of the Society participated in the discussion. The prevailing opinion seemed to be against sending tuberculous patients away from the comforts and surroundings of pleasant homes. The ultimate result can only be postponed by it for a brief period. The discussion of the latter

subject developed neither any definite or new method of treatment. Cases must be treated as they occur, and with such remedies as are at hand and most appropriate.

Drs. Chandler and Branch, of St. Albans, were invited to present to the next meeting of the State Society, some reminiscences and notices of the early practitioners of Franklin County. The physicians to whom this invitation is extended are among the oldest practitioners in that county. The latter is still in full practice. The former retired from business some years since, but still retains the interest of his younger days in all that pertains to the profession.

On Wednesday evening, the members of the Society were very pleasantly entertained by Dr. and Mrs. Fasset, at their residence, and the Society proffered them a unanimous vote of thanks for their courtesy and generous hospitality.

A vote of thanks was also tendered to the managers of the Vermont consolidated railroads for courtesies extended to members of the Society, and also to the proprietor of the Welden House for the unceasing pains taken to make the stay of the members agreeable and pleasant.

The number in attendance upon this meeting of the Society was quite large, the discussions interesting and instructing, continuing through two days and one evening. The annual meeting of the Society is to be held at Montpelier, commencing on the second Wednesday of October, at 10, A.M.

Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 27, 1871.

GENERAL SURGICAL PATHOLOGY AND THERAPEUTICS.

We have been induced to delay writing a bibliographical notice of the work of Prof. Billroth, of the Vienna University, on General Surgical Pathology and Therapeutics, because we are convinced of its importance as an authority in surgery, and wish to give it more prominence than a simple book review would allow us. It has been excellently translated from the German by Dr. Hackley, of New York, and we have received it from the publishers, Messrs. Appleton & Company.

Prof. Billroth has in this volume given us

a thorough *résumé* of the existing state of knowledge in surgical pathology. Most of the more recent views in his book have been floating through the journals for several years back; but they have not hitherto been gathered together in compact form, and, at this day, when our schools are constantly taking a higher stand and medical education necessarily embraces all the new ideas to secure acknowledgment, such works as these are imperatively demanded.

The first lecture aptly speaks of the history of surgery and of its relation to internal medicine, the necessity of the practising physician being acquainted with both, and of the nature of the studies in the German school. Simple incised wounds, treatment of hæmorrhage, healing by first and second intention, are embraced in the next four lectures. After speaking of the various methods of treating open wounds, Prof. Billroth says:—

"I have recently become convinced that it is better not to apply dressings to fresh wounds or to those suppurating freely, but to take precautions for the blood, pus, and sanies, to flow into vessels placed beneath. Thus we make the unexpected discovery that the blood and serum at first escaping has no smell of its own, when cold, nor has pure pus; and, moreover, that, at the ordinary temperature of the room, this secretion may stand for twelve or twenty-four hours without developing stinking gases. This is surprising, because we know that every dressing, saturated with blood or pus, smells worse when removed from the wound, and that this odor can only be overcome by keeping the wound constantly covered with so-called antiseptic or disinfectant solutions. The reason of this is, that, when the secretion flows off, it cools so quickly that it decomposes far less readily, while the same secretion decomposes very quickly when on the wound at a temperature of 101°-104° F., and the water cannot evaporate from it on account of the thick dressing. It is also possible that the minute organisms, which induce the decomposition, have a more favorable soil when the secretion impregnates the dressing than when it is received in a vessel or dries into a scab on the wound; we shall notice this in the development of these small organisms, which occasionally give the pus a blue-green color; of this more hereafter. Clinical observation, as well as experiments, shows that the reabsorption of putrid and purulent se-

cretion is greatly favored when the evacuation or escape of the secretion is mechanically opposed; on this ground also we cannot sufficiently urge that the escape of the secretion from the wound should be perfectly free. It is true that in this way crusts form, and the wound does not look so well; but this objection is slight as compared with the advantages of the open treatment of wounds. If the wound granulates perfectly, cicatrization begins, and the secretion grows less, we may dress the wound as usual without injury. In freely-suppurating wounds, applications of charpie have the advantage of absorbing the pus; but this is a doubtful advantage, if we bear in mind the possibility of more ready decomposition of the pus in the charpie.

Also, in mentioning the treatment of contused wounds:—

In many cases contused wounds require no more treatment than incised wounds; the conditions for healing exist in both. Hence, in a contused wound it is only necessary to anticipate any accidents, or at all events to master them so that they may not become dangerous. In both respects we may do something. Formerly, it was supposed that the air with its oxygen and its ferments particularly favored the decomposition of dead, organic bodies, hence of contused parts; to prevent this, the wound was excluded from the air, and, to prevent warmth acting as an aid to decomposition, the wounded part was kept cool. We attain both objects by placing the injured part in a vessel of cold water, whose temperature is always kept cool by ice. This treatment is called "immersion" or continued "cold-water bath." I first saw this used with excellent effect by my earliest teacher in surgery, Prof. Baum, in Göttingen. This mode of treatment is only really practical in the extremities; in the leg as high as the knee, and in the arm to a little above the elbow. We place suitably-constructed arm and foot vessels filled with cold water in the patient's bed, and have the wounded extremity kept in it day and night.

He also advises wet compresses, and irrigation:—

I have seen all these modes of treatment in practice. Here is my opinion of them: none of them act certainly as prophylactics. In contused wounds of the hands and feet the water-bath is best; for, under this treatment, extensive suppuration is rarest. To attain the same favorable results by the ice-treatment, we must cover not only the

wound but the parts around with the ice-bladders; pack the parts in ice.

Still farther on he makes a fling at the old school poultice—a good thing in its way—the indiscriminate use of which is yielding to more modern ideas of treatment:—

One of our colleagues of former days would shake his head doubtfully, if he heard that we had talked so long about the treatment of contused wounds and secondary suppurations, without having mentioned *cataplasms*; "*Tempora mutantur!*" Formerly cataplasms belonged to suppurating wounds as undoubtedly as the lid to the box, and now, three or four weeks may pass in my wards without cataplasms being once employed for their original uses. The employment of moist warmth, whether in the form of cataplasms or of thick cloths dipped in warm water, is useless in the treatment of contused wounds, and, in the treatment of secondary suppurations, it is occasionally injurious; under them the wounds become permanently relaxed, the soft parts swell, and healing is not advanced. Moreover, cataplasms only truly act as moist warmth when often renewed; their renewal is tiresome, the poultice easily sours, or may be scorched, and, finally, the whole mess cannot be carefully watched in a hospital; a cataplasm covered with pus may be removed, new poultice added, and it may then be placed on another patient. In some hospitals at least half of the surgical patients wear poultices; hundred-weights of grits and flaxseed, &c., for poultices, are used monthly in the surgical wards; they are almost banished from my wards.

The formation of new bone and repair after injury is treated in a very interesting manner. We have only space for a brief *résumé*:—

If we now view the process as a whole, we see that the cell infiltration in the bone itself, as well as in all the surrounding parts, aids in the formation of callus, and that hence the periosteum plays no exclusive osteoplastic rôle. This might have been concluded *a priori*, because, if the periosteum alone formed the external callus, as was formerly supposed, the portions of the bone free of periosteum, as those places where tendons are attached to the bone, could form no callus; this is directly contradicted by observation. In normal growth, also, the periosteum does not by any means play the important part ascribed to it in the

formation of bone; for we may just as correctly regard the layer of young cells lying on the surface of the bone, and extending into the Haversian canals, as belonging to the bone, as to refer it to the periosteum.

In the treatment of simple fractures, Billroth relies principally on immovable apparatus, recommending especially the plaster bandage of Mathysen, but mentioning also the starch and liquid glass methods; he fails to speak of the glue bandage used by many surgeons here. To permanent extension by weights he gives but little attention, evidently believing this method of less importance than the immovable apparatus.

In speaking of the reduction of dislocations, we regret that Prof. Billroth has not laid more stress on the employment of manipulation, as practised by our American surgeons. In fact, almost his only reference to this method of treatment is comprised in the sentence, "at present, in the different dislocations, we are more apt to resort to very different motions, such as flexion, hyper-extension, abduction, adduction, elevation, &c." As an antithesis, he says:—"Now the multiplying pulleys, or Schneider-Menel's extension apparatus, is almost exclusively used." The Professor's talk in reference to reduction savors too much of brute force, and too little of the scientific handling which the suggestions of Bigelow and other of our American surgeons bring to mind.

In speaking of hospital gangrene, he says:—

Views as to the causes of hospital gangrene vary; this is chiefly because many living surgeons have had the good or bad fortune never to have seen the disease; thus in Zürich it has never been seen. In his maxims on military surgery, Stromeyer states, as a young physician in the Berlin Charité, he had only seen one case of hospital gangrene. Surgeons who have not seen this disease, or have only seen sporadic cases, think it is due to gross neglect, dirty dressings, &c., and regard it as little more than an ulcer of the leg that has superficially become gangrenous from dirt and neglect. Other surgeons suppose that hospital gangrene is, as the name would indicate, a disease peculiar to some hospitals, and that its occurrence is only promoted by neglect of the dressings. Lastly, a third view is that this form of gangrene is due to

epidemic influences, and that its name is in so far incorrect, as it occurs outside and inside of hospitals at the same time. In the hospitals it probably spreads by inoculation, for I do not doubt that matter may be carried from gangrenous to healthy wounds, by forceps, charpie, sponges, &c., and there excite the disease. Von Pitha and Fock have expressed the belief that it is an epidemic-miasmatic disease. In the surgical clinic at Berlin with Fock I observed an epidemic, while the disease was seen, not only in other hospitals in Berlin, but in the city, in patients who could not be proved to have had anything to do with a hospital. The disease appeared very suddenly, and entirely disappeared in a few months, although the treatment of the wounds had not been at all changed, nor could any changes be made in the hospital itself. This seems to show that the causes do not lie in the hospital itself. Epidemic hospital gangrene might occur from certain small organisms, which are rarely developed, which, like a ferment, induce decomposition in the wound and granulating tissue; hence I should preferably compare this disease of wounds with blue suppuration, which causes no injury to the wounds, but, according to Lücke, like blue milk, is caused by small organisms and can infest other wounds. The requirements for the growth of these small bodies are probably particularly favored by certain atmospheric influences, hence the disease spreads epidemically. All this is hypothesis; but it is certain that the transfer of hospital gangrene pulp or putrid matter to healthy wounds usually (always, according to Fisher) induces hospital gangrene, and this is very important in practice. From my recent experience in the Vienna General Hospital, I am more and more convinced that this disease results from specific causes, entirely independently of pyæmia, septicæmia, erysipelas and lymphangitis, although it may be followed by either of these diseases.

Again, in reference to the origin of pyæmia, he remarks:—

I can entirely agree to the miasmatic origin of pyæmia, if by miasma is understood what I understand by it in the present and some other cases, namely, dust-like, dried constituents of pus, and possibly also accompanying minute, living, very small organisms, which in badly-ventilated sick-rooms are suspended in the air or adhere to the walls, bedclothes, dressings, or carelessly-cleaned instruments. These bodies, which are in some respects of different na-

ture, are usually phlogogenous, all pyrogenous, when they enter the blood; of course they will collect chiefly where there is the best opportunity for their development and attachment, that is, in badly-ventilated sick-rooms, where the patients are carelessly attended, where there is deficient cleanliness, and the patients remain some time in the same apartments.

We had marked several other passages, but are obliged to omit them for want of space. We can only advise our readers to buy the book and peruse it for themselves.

STEPHANURUS DENTATUS. *Mr. Editor*.—In the number of the *JOURNAL* for July 13, you re-publish from the *British Medical Journal* an account of the discovery of this entozoon by Dr. Cobbold in the tissues of the hog sent to him by Dr. Fletcher, of Indianapolis. Dr. C. says:—

"The stephanurus was first described by the late Dr. Diesing, of Vienna, in 1839, and I am not aware that any one has since met with it."

The same parasite was found in the fat of a hog and described by me in the Proceedings of the Boston Society of Natural History in 1858. The worms occupied a portion of the fat about the size of a man's fist, in the neighborhood of the kidney, and had burrowed through it in every direction, forming canals three or four millimetres in diameter, which terminated in cysts. On cutting open these cavities, which did not communicate with each other, they were found filled with pus, and in each were two worms, male and female.

JAMES C. WHITE, M.D.

PHOTOGRAPHIC REVIEW OF MEDICINE AND SURGERY.—We have already referred to this excellent periodical, but cannot refrain from mentioning it once more in connection with the subject of monstrosities. In the number for June are very fine photographs of the Carolina twins, exhibited in our city a year or two ago, and of the Ohio babies, alluded to in our editorial of July 13th, and whose death has just occurred in this city. The *Review* is taken by a number of medical men in Boston, who speak of it in the highest terms.

"THE EXPONENT OF THE FREE AND ENLIGHTENED OPINIONS OF THE PROFESSION."—

Such is the very praiseworthy motto which heads an advertisement of the *Chicago Medical Journal*. We are confident that such is, in fact, the standard which this high-toned *Journal* constantly aims to attain, and we always gladly welcome it to our sanctum. We congratulate the Editors on the retrospect of the past twenty-seven years and the eminent position they have always held in the eyes of the profession. We venture, however, to make two quotations from our cotemporary, and we do so without comment of any kind; one is taken from the advertisement above named—the second is from the editorial pages of the same *Journal* for the current month:—

"In looking over its files, we are proud to discover that although its editorial conduct has from time to time been committed to various hands, *The Chicago Medical Journal* has ever been ranged on the side of high-toned legitimate medicine, has ever sustained that policy deemed best for its advancement, has condemned and attacked the little, the mean and the sordid, under whatever guise they have tried to come under the wing of the profession—it has ever been ready to recognize true progress and discovery, whilst maintaining that staunch conservatism which, previous to reception, compels innovation to prove itself reform.

"Under its present management, the *Journal* will remain independent of all trammels, of all cliques, private interests or narrow views. It will remain the exponent of the free and enlightened opinions of the profession, to whom its pages will ever be freely open for the discussion and development of the truths of medical science. * * * * *

"We have no pet notions to foster, or beloved dogmas to disseminate, and had rather, by far, expose ourselves to the charge of inconsistency, than to labor with those who attempt to barricade the advance of modern science by piling up the wrecks and debris of the exploded 'systems' of olden time."

"*Radical Change*.—The Harvard University Medical School has adopted a course of instruction extending, like the academic curriculum, throughout the year. Three years' instruction will be given by lectures, recitations, &c., and a series of examinations has been arranged, to occur at intervals during the course of study.

"The plan is essentially the one first

adopted and then abandoned by the University of Michigan, twenty odd years since. Practically, it furnishes medical education to rich men's sons only. The vast majority of medical students have neither time nor means to avail themselves of the conceded advantages of such a course. Meanwhile, we reiterate, more depends on the teacher than the 'plan.' Not even medical students can gather figs from thistles."

THE RADICAL CURE OF HERNIA.—Dr. Vans Best proposes a simple operation for the radical cure of hernia that requires neither the invagination of the parts, nor the use of plugs or buttons, whether of India-rubber or split shot. The steps of the operation are these: He uses a rather long-handled, flat naevus or hemorrhoid needle, well bent (quite a semi-circle) from shoulder to tip, of one and a half inches, in diameter, not too wide, and sharpened on both sides from one-third of an inch from the point. This needle, with a plain dissecting forceps and strong salmon-gut, is all that is required for the operations. After chloroform has been fully given and the hernia reduced, the thigh must be adducted and flexed. The finger, as usual, is introduced *quite within the internal ring*, carrying the integument in front of it up the canal, whilst an assistant draws the skin of the abdomen firmly over towards the opposite groin. The threaded needle is then passed close to the finger, a small piece of wax having been moulded on its point (instead of a canula): the handle of the needle is raised, and the point pushed through the internal pillar and the abdominal parietes, close within the internal ring. The portion of gut on the convex side of the needle is seized by the forceps of the assistant, and the needle, still threaded, withdrawn through all the structures except the temporarily invaginated skin. The finger being carefully maintained *in situ*, the gut on the concave surface of the needle is slightly pulled by the assistant, while that already seized is firmly held. This facilitates the turning of the needle, and transfixion of the outer pillar (Poupart's ligament). This being accomplished, the skin of the abdomen is drawn towards the crest of the ilium, and the needle passed through the original aperture unthreaded, and the finger and it withdrawn. There is, therefore, one scrotal and one abdominal aperture, the latter directly above the aperture of exit of the hernia. Nothing now remains but to tie firmly home the two ends of the salmon-gut,

cut it short, and let it drop into the wound. A pad and spica bandage are applied, a dose of opium is given, and the patient kept in bed until the parts are well matted together. The knot of salmon-gut will either become encysted or come away, it matters little which; in either case the approximation of the pillars is certain. It is satisfactory to the operator that the assistant should pass his finger up to the internal ring, when he can distinctly feel it grasped as the ligature is tightened. It is absolutely necessary that the salmon-gut should be soaked in warm water for five minutes before being used, and that long round thread should be selected. The needle should be threaded from the concave side. Dr. Best states that he has performed the operation three times, twice with complete success; the third patient was refractory.—*The Lancet*.

THE SELECTIONS OF CASES FOR THE OPERATION OF SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH BONE. By WILLIAM ADAMS, F.R.C.S., Surgeon to the Royal London Orthopædic and Great Northern Hospitals.—After observing that the operation of subcutaneous division of the neck of the thigh bone, which he first proposed, had now been successfully performed five times, and only once, for fibrous ankylosis in a child, with an unfavorable result, the author stated that bony ankylosis is the result of several morbid conditions, differing as to the destructive, or non-destructive character, as affecting the bones.

When bony ankylosis has taken place as the result of strumous disease of long standing, and accompanied with abscess, destruction of the neck and head of the bone frequently occurs, the disease being essentially of a destructive character.

On the other hand, when bony ankylosis has taken place as the result of acute rheumatic inflammation, no destruction of bone ever occurs, and the head and neck of the bone remain of the full natural proportions.

This is an important pathological law, and, as a rule, the same may be said in cases of bony ankylosis after pyæmia, and traumatic inflammation in adults.

In confirmation of Mr. Adams's opinion that in many cases of bony ankylosis of the hip-joints, the head and neck of the thigh bone remain of their full natural proportions, whilst in other cases they are more or less destroyed; but only in some instances to such an extent as to prevent

the subcutaneous division of the neck of the thigh bone being performed, the author referred to the specimens in the principal museums of London, and stated that out of thirty-three specimens referred to, division of the neck of the thigh bone could be performed in twenty-one cases.

After stating that the diagnosis in reference to the shortening of the neck of the thigh bone could be made with certainty, the author stated the following as the conclusions to which he had arrived.

1st. That in rheumatic ankylosis no destruction of bone ever exists.

2d. In ankylosis, after pyæmic inflammation, destruction of bone rarely exists, the soft structures only being destroyed.

3d. In ankylosis, after traumatic inflammation in healthy adults, no destruction of bone occurs, as a general rule, even after acute suppurative inflammation, the soft structures only being destroyed.

4th. In ankylosis, after strumous disease of the joint, when arrested in the early stage, only superficial caries of the head of the bone occurs, and the operation can generally be performed.

5th. In ankylosis following the more severe forms of strumous disease, in which there has been evidence of caries and necrosis of bone, destruction of the head and neck of the thigh bone may be diagnosed, and in these cases the operation cannot be performed.

Thus, it will be seen that out of the five classes of bony ankylosis above described, in three classes the head and neck of the thigh bone remain of their full natural proportions. In the fourth class, although some difficulty may occasionally be met with, the operation can generally be performed, and that it is only in the fifth class of cases that the operation is decidedly negatived.—*Dublin Med. Press & Circular*.

MEDICAL EDUCATION AT BERLIN.—Professor Gairdner has recently delivered two lectures at the University of Glasgow, entitled "Recollections of a recent visit to Berlin, with special reference to the methods pursued in teaching clinical medicine, &c." In his first lecture Dr. Gairdner gave an account in considerable detail of what he had witnessed in the clinical wards of Prof. Traube, who conducts with great efficiency and success the "*Pro-pædæntische*," or elementary clinical instruction at the Charité Hospital. In his second lecture he spoke of the production, as a rule, of medical students, "who begin upon a higher platform than ours, trained even in

the gymnasia and *Real-schulen* into habits of accurate thought, and informed, not only with several languages, ancient and modern, but with something more than the rudiments of those sciences on which all medical education has to be grounded. From all I could see around me in Berlin, from the exact and scientific spirit in which every kind of medical inquiry is pursued, from the evident care for scientific training in the universities, from the facilities given to researches in the anatomical, physiological, chemical, and pathological departments, under the direction of the various professors, with the aid of liberal grants for rooms, apparatus, and materials, I came away convinced that medical science and scientific training, which are, unhappily, in danger of being starved in England and Scotland, thereby cutting away from the practical departments the staff on which they ought to lean, are fostered in the German Universities as the life and light of the medical art.—*Med. Times and Gazette*.

DIAGNOSIS OF RECENT ENDOCARDITIS.—Prof. Skoda observed (*Lancet*, June 3, 1871), in the course of some clinical remarks at the Vienna Hospital, with regard to a case of second attack of acute rheumatism, with a systolic murmur at the apex of the heart, that, though the mitral insufficiency here present was a proof that endocarditis *had* existed, the question one should always consider, if a patient come under observation with an intra-cardiac murmur and rheumatism side by side, is: "Is this murmur due to old or to recent endocarditis?" Where the history fails to help us, we may be aided by remembering the following points: In a recent endocarditis the spleen will probably be plugged (infarcted) with fibrinous deposit from the valves, and therefore *enlarged*. Similar infarction of the kidneys will give rise to the presence of blood in the urine. Pains in the cardiac region, and irregularity and palpitations of the heart, if they exist, point to a recent endocarditis; but they depend more on the fever present than on the endocarditis *per se*. The most certain proof of fresh endocarditis is a gradual increase of dilatation of the heart during the course of the rheumatic attack, especially if followed by palpitation and dyspnoea.—*The Medical News*.

The *Dublin Med. Press and Circular* says: "The city of New York and the State of Massachusetts give forth the fullest and best government documents on public health which appear in print."

Medical Miscellany.

READY TEST SOLUTION FOR GRAPE SUGAR.—Dissolve 16 grammes of pure sulphate of copper in 64 grammes of water. To this solution add 80 centimetres of soda lye (s. g. 1.34), avoiding any elevation of temperature, until 112 grammes have been mixed. From 6 to 8 grammes of glycerine are to be added, until the liquid acquires an azure-blue color.

We regret to learn that the *Journal of Cutaneous Medicine*, published in Belfast and London, and edited by Dr. H. S. Purdon, has been discontinued.

DR. ATKINSON, the Permanent Secretary of the American Medical Association, proposes to issue a pamphlet edition of the Proceedings of the Convention at San Francisco, at 25 cents a copy. As the volume of transactions cannot be ready before October, this will be the only official record of the proceedings until that appears.

CLINICAL TEACHING AT BERLIN.—A writer in a recent number of the *British Medical Journal* thus describes Prof. Frerich's method of conducting his *clinique*:—

"It is conducted in one of the theatres of the Charité, three or four times a week, in the following way: A patient is rolled into the arena from the adjoining ward on a bed, and one of the students, named *Practicanten*, who have put their names on a list for the purpose, is called down. The history of the case is read to him and to the class, and he makes a physical examination of the patient, assisted by the professor, and then forms his diagnosis. The professor then analyzes the case in every direction, in a way peculiar to the German school, and which we have never heard equalled by any other teacher, except the lamented Oppolzer; and from this it is that the English student derives benefit: there he finds the most ordinary everyday cases looked at in other aspects than that in which he has been accustomed to regard them, and the diagnosis arrived at by processes of reasoning quite new to him.

"Prof. Traube's *clinique* is conducted more in accordance with our ideas, inasmuch as he goes round his wards with the class. He gives two courses—one intended for the junior students, the other for senior students and foreigners. Traube's specialty is diseases of the chest, and he possesses the most acute powers of auscultation. His ears are habitually stuffed with wadding, in order, it is said, to preserve the membrana tympani in perfect order."—*Med. Times*.

LOCAL APPLICATIONS TO BURNS.—Dr. Binkerd recommends as an application to burns, when first seen, carbolic acid and glycerine, in the proportion of from five to ten drops of the former thoroughly incorporated with two ounces of the latter, spread on with a camel's-hair or other light brush, then a layer of white cotton, over which a roller-bandage is neatly adjusted.—*Boston Journal of Chemistry*.

WOMAN'S VOICE.—Mr. Glaisher, the aeronaut, has noticed that the voice of a woman is audible in a balloon at the height of about two miles, whilst that of a man has never reached higher than a mile.—*Medical Times and Gazette*.

TO CORRESPONDENTS.—Communications accepted:—Dentigerous Cysts.—Iodoform in some phases of Syphilis.—Chloral Hydrate in the Treatment of Insanity.

BOOKS RECEIVED.—Handy Book of the Treatment of Women's and Children's Diseases, according to the Vienna Medical School, By Dr. Emil Dillinger. Translated from the German by Patrick Nicol, M.B. Philadelphia: Lindsay & Blackiston. Pp. 244.—A Manual of Midwifery. Including the Signs and Symptoms of Pregnancy, Obstetric Operations, Diseases of the Fœtural State, &c. &c. By Alfred Meadows, M.D., M.R.C.P., &c. &c. First American from the Second London Edition, with numerous illustrations. Philadelphia: Lindsay & Blackiston. Pp. 467.—The Physician's Prescription Book. A new American from the Fifteenth London Edition. Containing lists of Terms, Phrases, Contractions and Abbreviations used in Prescriptions, with Explanatory Notes, the Grammatical Construction of Prescriptions, Rules for the Pronunciation of Pharmaceutical Terms, a Prescriber's Vocabulary of the Names of Drugs, &c. By Jonathan Pereira, M.D., F.R.S., &c. Philadelphia: Lindsay & Blackiston. Pp. 286.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending July 22, 1871.

Cities and Towns, each place.	No. of deaths in town.	PREVALENT DISEASES.			
		Cholera Infantum.	Consumption.	Dysentery and Diarrhea.	Scarlet Fever.
Boston . . .	166	55	21	12	0
Charlestown 23	3	2	1	0	0
Worcester . 29	11	4	1	0	0
Lowell . . . 20	1	3	0	0	0
Milford . . . 9	5	1	0	0	0
Chelsea . . . 8	3	1	0	0	0
Cambridge . 31	9	1	3	0	0
Salem . . . 17	4	4	0	0	0
Lawrence . 10	2	3	0	0	0
Springfield 13	5	0	0	0	0
Lynn . . . 13	2	2	0	0	0
Fitchburg . 3	0	0	0	0	0
Newburyport 6	0	1	0	0	0
Somerville . 11	5	0	0	0	0
Fall River . 22	4	1	3	0	0
Haverhill . 3	0	1	0	0	0
Holyoke . . 8	2	1	1	0	0
	392	111	52	21	0

Lowell reports three deaths from smallpox.

Two deaths occurred from tetanus or lockjaw; one in Fall River and one in Newburyport.

GEORGE DEERY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 22d, 1866. Males, 84; females, 82. Accident, 8—apoplexy, 1—cyanosis, 1—inflammation of bowels, 2—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 3—cancer, 2—cholera infantum, 55—cholera morbus, 3—consumption, 22—convulsions, 2—croup, 1—debility, 4—diarrhea, 5—dropsy of brain, 5—drowned, 1—dysentery, 7—typhoid fever, 1—homicide, 1—disease of the heart, 4—inflammation of throat, 1—disease of the kidneys (Bright's 3), 4—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 7—measles, 1—old age, 2—paralysis, 2—premature birth, 2—peritonitis, 1—suicide, 1—teething, 1—tumor, 1—unknown, 4.

Under 5 years of age, 92—between 5 and 20 years, 7—between 20 and 40 years, 29—between 40 and 60 years, 18—above 60 years, 20. Born in the United States, 128—Ireland, 27—other places, 11.